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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Amendment of Parts 74, 78, and 101	)	
of the Commission's Rules to Adopt More	)	ET Docket No. 96-35
Flexible Standards for Directional	)	
Microwave Antennas	)	

COMMENTS OF ENDGATE CORPORATION

Endgate Corporation ("Endgate"), hereby submits its comments on the Commission's Notice of Proposed Rule Making in the above-captioned docket[1]. Endgate totally supports the *Notice's* proposal to allow directional antennas to comply with requirements for either minimum antenna gain or maximum beamwidth. Endgate further recommends that the existing rules be ammended to specify a Maximum EIRP radiated power envelope rather than a maximum input power and associated relative sidelobe suppression levels. This proposed ammendment, which specifies antenna levels in dBW rather than dBi, preserves the intent of the rules to minimize interference, and *further* maximizes spectrum efficiency without precluding the use of lower gain, low power antennas that are appropriate for emerging technologies.

[1] FCC 96-80 (March 14, 1995) ("*Notice*").

I. ALLOW DIRECTIONAL ANTENNAS TO COMPLY WITH REQUIREMENTS FOR EITHER MINIMUM ANTENNA GAIN OR MAXIMUM BEAMWIDTH

The *Notice* concludes that by this action, this modification to fixed service microwave rules will "make them compatible with new, emerging technologies for directional antennas." The Commission notes that "the proposed changes will preserve the intent of the rules to maximize spectrum efficiency and minimize interference".

As a supplier of innovative array antennas for emerging point-to-point and local area network applications, Endgate supports the Commission's conclusion that this action "will remove a regulatory impediment to the use by Commission Licensees of directional antennas employing new emerging technologies for which, in contrast to conventional antennas, maximum antenna beamwidth is not correlated directly to minimum antenna gain". This action will provide suppliers with the ability to develop antennas with specific performance properties which are appropriate for the application, rather than performance limited by pre-existing regulations.

II. ENDGATE URGES THE COMMISSION TO FURTHER MODIFY EXISTING RULES TO ADOPT A MAXIMUM RADIATED POWER ENVELOPE, IN PLACE OF THE EXISTING RULES WHICH SPECIFY BOTH THE MAXIMUM TRANSMITTER POWER AND THE RELATIVE SIDELOBE RADIATION SUPPRESSION VALUES.

Endgate urges the Commission to adopt a maximum effective isotropic radiation power ("EIRP") envelope, based upon the existing rules[2] which define the maximum allowable peak transmitter power and the requirements with respect to sidelobe suppression. Endgate believes that these existing requirements, which are designed to reduce potential interference, restrict the types of antennas which can be used for certain applications such as short distance, low power "Campus LAN", "Local Video Conferencing", and "LMDS". Such antennas have aesthetic advantages by virtue of their relatively small size and/or low profile. Although this *Notice* eliminates the requirement for minimum *Gain*, it still restricts the use of reduced gain (wider beamwidth) antennas by imposing a *maximum beamwidth*. By imposing this recommended maximum EIRP requirement, low gain antennas which transmit low power will still minimize interference (radiation will fall within the existing radiation suppression envelope, relative to the maximum allowable transmitter power) and will *further* maximize spectrum efficiency as intended by these rules.

As an example, following the rules in Section 21.108 for 38,600-40,000 MHz, Endgate proposes that the maximum radiation from the centerline of the main beam should be specified to not exceed 50 dBW EIRP, with all other angles reduced by the

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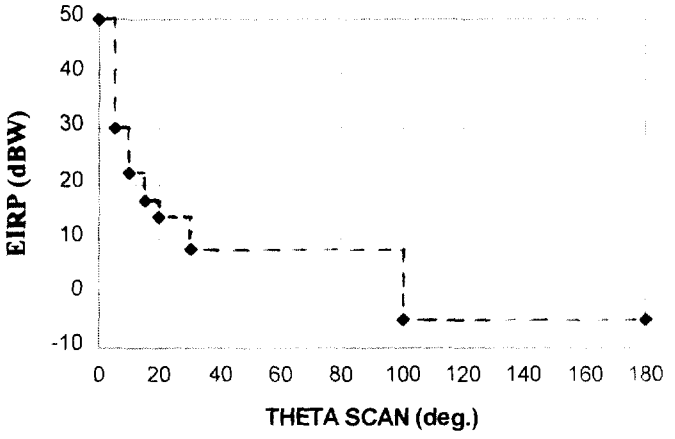
[2] Sections 21.108, 74.536, 74.641, 78.105, 94.75, and 101.115.

suppression levels listed in Part 21.108 Antenna Standards Table. Figure 1 describes this proposal.

Figure 1. Proposed Maximum EIRP

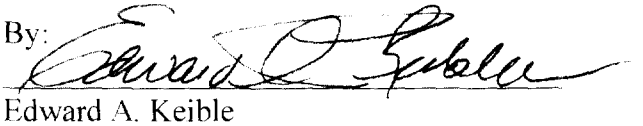


III. CONCLUSION

Endgate endorses the Commission's efforts to remove a regulatory impediment, which will encourage and promote new antenna solutions for emerging technologies for directional antennas. Endgate further urges the Commission to consider the proposed EIRP modification to the rules which would allow for the use of lower gain, wider beamwidth, low power antennas which are also appropriate for these applications.

Respectfully submitted,

ENDGATE CORPORATION

By: 

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